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The genus *Abantis* Hopffer, 1855 in Angola and description of a new species (Lepidoptera: Hesperiiidae, Pyrginae)*

L. F. Mendes & A. Bivar de Sousa

Abstract

One new species of the genus *Abantis* Hopffer, 1855 is described from Angola (Moxico Province) and compared with the most similar ones - main differences concern the wings shape, dorsal wing pattern and shape of the valves of genitalia; new data are presented relatively to other species of the same genus known to fly in the country.

KEY WORDS: Lepidoptera, Hesperiiidae, Pyrginae, *Abantis*, new species, new data, Angola.

El género *Abantis* Hopffer, 1855 en Angola y descripción de una especie nueva (Lepidoptera: Hesperiiidae, Pyrginae)

Resumen

Se describe una nueva especie del género *Abantis* Hopffer, 1855 procedente de Angola (Provincia de Moxico) y se compara con las especies conocidas más parecidas - las principales diferencias respecto a la forma y el color dorsal de las alas y la morfología de las valvas de la genitalia; se presentan nuevos datos relativos a otras especies del mismo género conocidas en el país.

PALABRAS CLAVE: Lepidoptera, Hesperiiidae, Pyrginae, *Abantis*, especie nueva, nuevos datos, Angola.

O género *Abantis* Hopffer, 1855 em Angola e descrição de uma espécie nova (Lepidoptera: Hesperiiidae, Pyrginae)

Resumo

Descreve-se uma espécie nova do género *Abantis* Hopffer, 1855 proveniente de Angola (Província do Moxico) e compara-se com as espécies conhecidas mais parecidas - as principais diferenças respeitam a forma e cor dorsal das asas e a morfologia das valvas da genitália; apresentam-se novos dados relativamente a outras espécies do género conhecidas no país.

PALAVRAS CHAVE: Lepidoptera, Hesperiiidae, Pyrginae, *Abantis*, espécie nova, novos dados, Angola.

Introduction

Five species of the Afrotropical paradise-skippers of the genus *Abantis* Hopffer, 1855 were previously assigned from Angola. The study of new samples allows to describe one new species and to

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report new material from three other species previously known from the country. Already assigned as composed by scarce or rare species (COLLINS & LARSEN, 1994), this exclusively Afrotropical genus will count now with 24 mostly monotypical species, the 23 reported by WILLIAMS (2008) plus the one that will be described ahead from the Moxico Province in the center-east area of Angola.

Material and Methods

Studied specimens belong to the junior co-author collection (in the text, BS) and to those of the late Eng. A. Nozolino de Azevedo (in the text, NA) and of the late Eng. José Passos de Carvalho (in the text, PC). The holotype of the newly described species is deposited in the entomological collection of the IICT/JBT - Zoology (former Centro de Zoologia, in the text, CZ).

According mostly with CRAWFORD-CABRAL & MESQUITELA (1989) the Administrative Provinces and approximate coordinates of the localities from where *Abantis* samples were reported from Angola and the number of the irrespective aero-photogrammetric map (GOVERNO GERAL DE ANGOLA, 1969) are the following ones - after the country' independence Nova Lisboa recovered the name Huambo and Teixeira de Sousa that of Dilolo.

Locality	Province	Latitude	Longitude	Altitude (m)	Map
Kubango, near Massaca	Kuando-Kubango	15° 37' S	17° 26' E	1200	384
Lumeje	Moxico	11° 33' S	20° 47' E	1150	220
Nova Lisboa	Huambo	12° 46' S	15° 44' E	1650	256
Onschingue, near Kuito	Kuando-Kubango	15° 10' S	19° 07' E	1250	367
Teixeira de Sousa	Moxico	10° 42' S	22° 14' E	1100	180

Taxonomy

Abantis bergeri Mendes & Bivar de Sousa, sp. n. (Figs. 1, 5-7)

Holotype ♂: Moxico Province, Lumeje, 20-IV-1965, (BS-14091), det. L Berger as *Abantis b. bismarcki* (CZ-5372).

Description: Forewing: 16 mm. Wing pattern of dorsal surface as in Fig. 1. Genitalia (valve and details of the irrespective processes) as in Figs. 5-7.

Etymology: The new species is dedicated to the memory of Lucien A. Berger, lepidopterologist in the Museum Royal de l'Afrique Central, in Tervuren, Belgium, who in 1967 identified part of the skippers in the BS collection.

Discussion: *A. bergeri* Mendes & Bivar de Sousa, sp. n. enters the "*bismarcki*-group" of COLLINS & LARSEN (1994) known to include for the moment three species: *A. arctomarginata* Lathy, 1901, *A. bamptoni* Collins & Larsen, 1994 and *A. bismarcki*, Karsch, 1892.

A. bergeri Mendes & Bivar de Sousa, sp. n. is distinguishable from the eastern African *A. arctomarginata* (restricted to Tanzania and Malawi - COLLINS & LARSEN, 1994, WILLIAMS, 2008), due to the more extended white maculation on the forewing and the much more elongated white spots (particularly that of space 2 - cf. KIELLAND, 1990 and COLLINS, 1994), and on account of the much more rounded hindwing.

Abantis bamptoni is known (WILLIAMS, 2008) from the Zimbabwe, western Mozambique, western Tanzania, northern Zambia and Congo Democratic Republic / CDR (Shaba); as reported by COLLINS & LARSEN (1994), the PENNINGTON' (1978, pl. 183) specimens from Bomponi / Rhodesia (Zimbabwe) identified as "*A. arctomarginata*" certainly belong here, as it happens with the Kigoma female identified under the same name and represented by KIELLAND (1990); the same must be considered about the Mozambique material reported by KIELLAND (1990) also under *A. arctomarginata*, and about the geographical range of this species registered by ACKERY *et al.* (1995),

who considers *arctomarginata* as a subspecies of *A. bismarcki*. *A. bamptoni* shows the hindwing tornal area rounder, the forewing white spots different (mainly that on space 2), being the light areas more pure white; COLLINS & LARSEN (1994) emphasizes, further, that the white spot on space 2 in this species is twice as long as the white cell spot.

At last, *A. bismarcki* reported by WILLIAMS (2008) from Guinea, Ivory Coast, Togo, northern Nigeria, Cameroon, CDR, southern Sudan, Uganda and western Kenya, is larger -after LARSEN (2005) the forewing is 20 mm long- and shows the 4 subapical spots not so linear and less independent -they seem, at first glance, as one only bigger white spot; the dark colored area of the wings is, further, more intensive, that of the hindwing is wider and this wing is rounder at the tornus.

In what the male genitalia is concerned (Fig. 5-9), the outer process of the valve in the new species is much more similar to the condition in *A. bamptoni* and in *A. arctomarginata* than to what is known in *A. bismarcki* (EVANS, 1937, COLLINS & LARSEN, 1994). Indeed, in *A. bergeri* sp. n. this valve process is strongly salient as it happens with *A. arctomarginata* and with *A. bamptoni*, but its shape is different from both the cases. Relatively to *A. bamptoni* with a much more similar wing pattern (as *A. arctomarginata* is clearly distinct) that process is smaller, less extruded, not so curved at the outer posterior area, and toothed from this area on; its apex seems, furthermore, less strongly pointed.

Biotope: Woodland. The only known male was collected during the wet season.

Abantis contigua Evans, 1937 (Fig. 2)

Moxico Province, Teixeira de Sousa, III-1965, 2 ♂♂ (BS-14092-14093), det. L. Berger, 1967 as *Abantis venosa* f. *venosa*.

One male among the series studied by EVANS (1937, sub *A. venosa contigua*) was registered as obtained in Angola, though none detail was reported.

Described as a subspecies of *A. venosa* (EVANS, 1937) from Uganda, the species flies according to ACKERY *et al.* (1995) along Cameroon, Congo, CDR, Angola, Uganda and western Kenya; WILLIAMS (2008) adds northern Zambia. It is known to occur on deciduous woodland.

LARSEN (2005) considers *A. contigua* as representing the southernmost population of *A. elegantula* Mabilie, 1890 a species that is known from Guinea and Sierra Leone to Nigeria and that at the most, it will deserve a subspecific status.

Abantis paradisea (Butler, 1870)

WEYMER (1901, 1903) assigns the species from Onschingue, near Kuito, a stream close to the Cuito-Cuanavale, north from the Sobi River (Kuando-Kubango Province).

ACKERY *et al.* (1995) report that the species ranges along South Africa, Botswana, Zimbabwe, Mozambique, Malawi, Zambia, CDR (Shaba area) Tanzania and Kenya; LARSEN (1996) registers it attains Somalia and WILLIAMS (2008) adds north-east Nigeria, Uganda, Swaziland and north-east Namibia. They all neglect the species presence in the south-eastern Angola despite WEYMER (*ops. cit.*) references.

The species seems to occur mainly on moist savanna and coastal bush from August to October, being the caterpillars known food-plants (ACKERY *et al.*, 1995, WILLIAMS, 2008) species of *Annona*, *Xylopia* (Annonaceae), *Bridelia*, *Pseudolachnostylis* (Euphorbiaceae), *Hibiscus* (Malvaceae), *Lecaniodiscus* (Sapindaceae), *Philenoptera*, *Xeroderris* (Fabaceae) and *Cola* (Sterculiaceae).

Abantis tettensis Hopffer, 1855

The *Abantis* type-species, described from Mozambique, was reported from Angola (localities, dates and number of studied specimens unknown) by AURIVILLIUS (1928) and by EVANS (1937).

After ACKERY *et al.* (1995), the species distribute on northern and western Kenya, Tanzania, Malawi, Zambia, Angola, Namibia, Mozambique, CDR (Shaba area), Zimbabwe and South Africa (Transvaal, northern Natal, northern Cape). WILLIAMS (2008) adds Swaziland and Botswana. It occurs on moist and dry savanna, flies from November to April and the caterpillar feeds on *Grewia* sp. (Tiliaceae).

Abantis vidua Weymer, 1901 (Fig. 3)

Moxico Province, Teixeira de Sousa, III-1965, 1 ♂ (BS-14094), det. L. Berger, 1967, as *A. venosa* f. *vidua*.

The species was described (WEYMER, 1901, 1903 as *A. venosa vidua*) from Onschingue, near Kuito (Kuando-Kubango). It was later assigned again from “Angola” by AURIVILLIUS (1928) and by EVANS (1937, as *A. venosa* f. *vidua*) though always without details (new studied material or based in Weymer reference?).

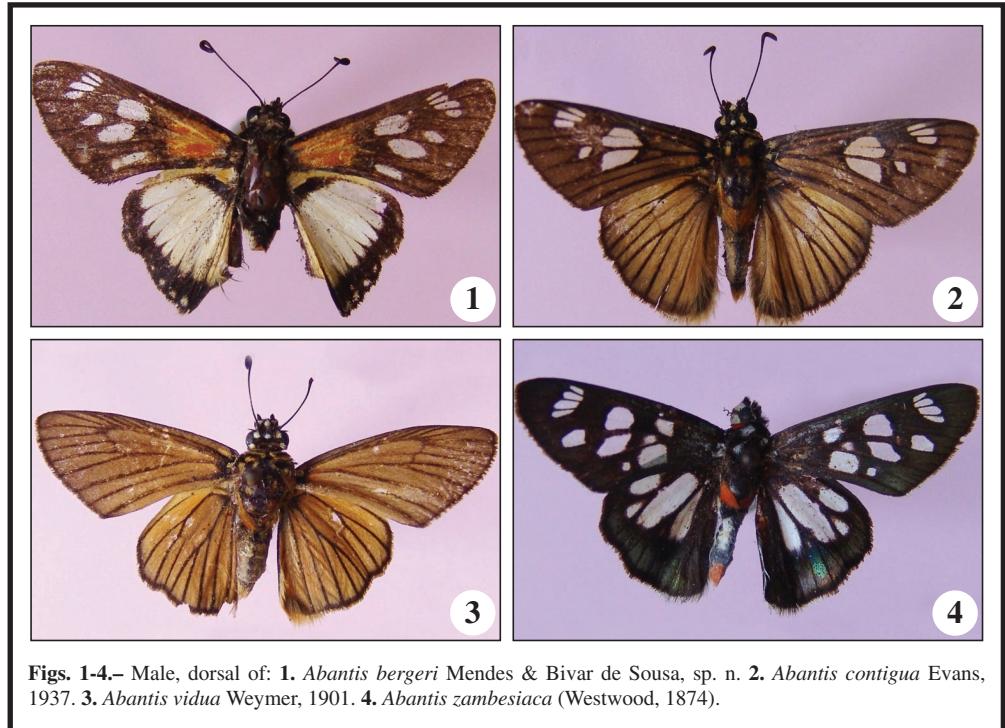
Geographical distribution: *A. vidua* is known (ACKERY *et al.*, 1995, WILLIAMS, 2008) from Angola, CDR (Shaba area) and Zambia and flies on deciduous woodland.

Abantis zambesiaca (Westwood, 1874) (Fig. 4)

Huambo Province: Nova Lisboa, III-1970, 1 ♂ (NA- no number); I-1971, 1 ♂ (NA - no number). Moxico Province: Lumeje, IV-1965, 2 ♂♂ (BS-14098-14099) - det. L. Berger, 1967. Teixeira de Sousa, III-1965, 3 ♂♂ (BS-14095-14097). Province ?: No locality, no date, 3 ♂♂ 2 ♀♀ (PC-22, 206, 348-350).

WEYMER (1901, 1903) reports the species from Onschingue, near Kuito and from Kubango, near Massaca (Kuando-Kubango) and BACELAR (1961) from the Bié Province, without details, considering the species as new to the country despite WEYMER (1901, 1903) references.

After ACKERY *et al.* (1995) *A. zambesiaca* flies along southern and western Tanzania, CDR (Shaba area), Malawi, Mozambique and Zimbabwe - its occurrence in Angola though registered twice, not considered. WILLIAMS (2008, Angola, again not reported) adds Zambia and Namibia (Caprivi stripe) and points it is typical from savanna, including *Brachystegia* woods being the males known to hilltop. He reports, further, the flight period as the months between August and November and between February and May, but one of the NA specimens (from the Huambo) was collected in January. The caterpillars are known to feed on species of *Pericopsis* and of *Swartzia* (Tiliaceae).



Figs. 1-4.— Male, dorsal of: 1. *Abantis bergeri* Mendes & Bivar de Sousa, sp. n. 2. *Abantis contigua* Evans, 1937. 3. *Abantis vidua* Weymer, 1901. 4. *Abantis zambesiaca* (Westwood, 1874).

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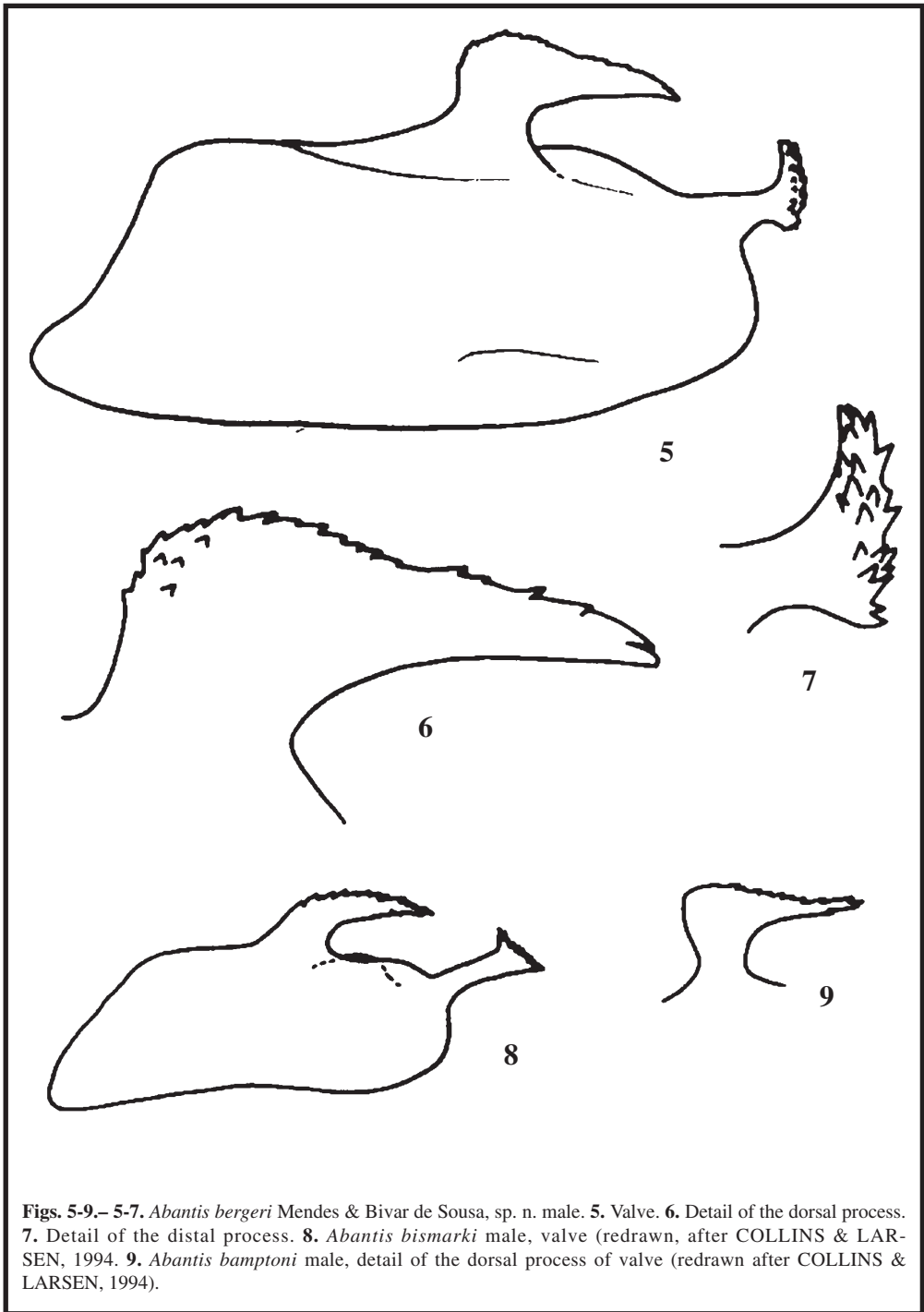
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Figs. 5-9.— **5-7.** *Abantis bergeri* Mendes & Bivar de Sousa, sp. n. male. **5.** Valve. **6.** Detail of the dorsal process. **7.** Detail of the distal process. **8.** *Abantis bismarki* male, valve (redrawn, after COLLINS & LARSEN, 1994). **9.** *Abantis bamptoni* male, detail of the dorsal process of valve (redrawn after COLLINS & LARSEN, 1994).